



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/534,911	05/13/2005	Jan Thomas Haines	056222-5075	6725
9629	7590	11/19/2009	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004				KAROL, JODY LYNN
ART UNIT		PAPER NUMBER		
1627				
MAIL DATE		DELIVERY MODE		
11/19/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/534,911	HAINES, JAN THOMAS	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jody L. Karol	1627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 03 September 2009.
- 2a) This action is **FINAL**.                    2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 10-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 10-18 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All    b) Some \* c) None of:
1. Certified copies of the priority documents have been received.
  2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                         | Paper No(s)/Mail Date. _____ .                                    |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ . | 5) <input type="checkbox"/> Notice of Informal Patent Application |
|  | 6) <input type="checkbox"/> Other: _____ .                        |

## **DETAILED ACTION**

Receipt is acknowledged of applicant's Amendment/Remarks filed 9/3/2009.

Claim 10 has been amended. Claims 1-9 have been cancelled. Claims 14-18 are newly added. Thus, claims 10-18 are pending and currently under consideration.

## **WITHDRAWN REJECTIONS**

1. Applicant's cancellation of claims 2 and 5-8 renders the objection of these claims moot. Thus, said objection is herein withdrawn.
  
2. Applicant's cancellation of claims 2 and 5-8 renders the rejection of claims 2, 5, and 8 under 35 U.S.C. 103(a) as being unpatentable over Witkewitz (US 5,087,458) in view of Barcelon et al. (US 4,825,344) and the rejection of claims 6-7 under 35 U.S.C. 103 (a) as being unpatentable over Witkewitz (US 5,087,458) in view of Barcelon et al. (US 4,825,344) and in further view of Cherukuri et al. (US 5,556,652) moot. Thus, said rejections are herein withdrawn.

## ***Response to Arguments***

3. Applicant's arguments filed 9/3/2009 have been fully considered but they are not persuasive.

The Applicant argues that eugenol and clove oil are not equivalents or obviously interchangeable for the purpose of creating flavors because the other components of clove oil may affect the hedonic profile to an extent that no longer matches cinnamic

Art Unit: 1627

aldehyde. In response it is respectfully submitted that the difference between eugenol and clove oil are not reflected in the claims. The claim language does not exclude the other components of clove oil from being present in the composition. It is further noted that eugenol, at least in part, is derived from clove oil in the examples provided in the instant specification (see pages 5-6, Flavour Examples A-G and I). Further, one of the examples that does not contain clove oil is cited as not containing enough eugenol (see page 6, Flavour Example H).

The Applicant further argues that Witkewitz et al. say nothing about using clove oil for any purpose, and there is absolutely nothing in Witkewitz et al. suggesting the possible addition of clove oil to the Witkewitz compositions. The Examiner respectfully disagrees. Witkewitz et al. clearly teach a flavor, such as clove oil, may be present in the chewing gum in an amount from about 0.1 to about 10% by weight (see column 5, lines 13-22).

The Applicant further argues that a cinnamon and clove flavored chewing gum is a highly unlikely chewing gum flavor. It is respectfully submitted that since Witkewitz et al. teach clove oil as a possible flavor, this flavor profile is clearly contemplated. It is further noted that clove oil is used in the examples provided in the instant specification (see pages 5-6, Flavour Examples A-G and I).

The Applicant further argues that cinnamic alcohol is used primarily as a solvent and not for its hedonic properties. It is respectfully submitted that cinnamic alcohol can not be separated from its hedonic properties. “Products of identical chemical composition can not have mutually exclusive properties.” A chemical composition and

Art Unit: 1627

its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties the applicant discloses and/or claims are necessarily present.

*In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Thus, despite the fact that Witkewitz et al. uses cinnamic alcohol as a solvent, the cinnamic alcohol still imparts its hedonic properties to the composition because those properties are inseparable from cinnamic alcohol.

The Applicant further alleges that cinnamic aldehyde is an extremely tricky target hedonic and it is surprising that eugenol modifies the weak, spicy notes of cinnamic alcohol in the direction of cinnamic aldehyde to provide the results sought by the Applicant. It is respectfully submitted that it appears that Applicant is intending to demonstrate unexpected results. It is noted that it is applicant's burden to demonstrate unexpected results over the prior art. See MPEP 716.02, also 716.02 (a) - (g). Furthermore, the unexpected results should be demonstrated with evidence that the differences in results are in fact unexpected and unobvious and of both statistical and practical significance. *Ex parte Gelles*, 22 USPQ2d 1318, 1319 (Bd. Pat. App. & Inter. 1992). Moreover, evidence as to any unexpected benefits must be "clear and convincing" *In re Lohr*, 137 USPQ 548 (CCPA 1963), and be of a scope reasonably commensurate with the scope of the subject matter claimed, *In re Linder*, 173 USPQ 356 (CCPA 1972).

In the instant case, it has not been demonstrated that there is an unexpected benefit from combining eugenol and cinnamic alcohol. The instant specification provides exemplary compositions, but offers no comparison of compositions

Art Unit: 1627

demonstrating the effect of eugenol on cinnamic alcohol. It is noted that the arguments of counsel cannot take the place of evidence in the record. *In re Schulz*, 145 USPQ 716, 718 (CCPA 1965); *In re Geisler*, 43 USPQ2d 1362 (Fed. Circ. 1997) ("An assertion of what seems to follow from common experience is just an attorney argument and is not the kind of factual evidence that is required to rebut a *prima facie* case of obviousness.") Therefore, no clear and convincing unexpected benefit is seen to be present herein.

Thus, for these reasons, Applicant's arguments are found unpersuasive. Said rejection is maintained. The instant claims are still considered properly rejected under 35 USC 103(a).

#### **REJECTIONS**

4. The following rejections and/or objections are either reiterated from the previous Office Action dated 3/3/2009 or newly applied. They constitute the complete set of rejections and/or objections presently being applied in the instant application. The newly applied rejections are necessitated by newly added claims 14-18.

#### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
6. Claims 10-15 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witkewitz et al. (US 5,087,458) in view of Barcelon et al. (4,825,344).

The instant claims are directed to a consumer product selected from oral care products and chewing gum, wherein said product includes a cinnamon flavor composition comprising cinnamic alcohol and eugenol together in at least 3% by weight of the total composition, and wherein the weight ratio of cinnamic alcohol to eugenol is in the range of 0.25:1 to 3.5:1. Claims 11-12 limit the weight ratio of cinnamic alcohol to eugenol range to 1:1 to 3.5:1 and 1:1 to 2:1 respectively. In regards to claim 13, it is noted that for the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consists essentially of" will be construed as equivalent to "comprising." See, e.g., *PPG*, 156 F.3d at 1355, 48 USPQ2d at 1355.

Witkewitz et al. teach a homogenous, liquid solution comprising oleoresin black pepper and cinnamyl alcohol (cinnamic alcohol), as well as a method for adding said solution to a chewing gum, preferably a chewing gum comprising cinnamon flavor (see

Art Unit: 1627

abstract; column 3, lines 45-56). Witkewitz et al. teach the cinnamyl alcohol serves as both a solubilizing agent for the oleoresin black pepper and enhances the cinnamon flavor of the chewing gum, while the oleoresin black pepper is flavor enhancer (see column 1, lines 36-41; column 5, lines 28-31). The homogenous solution comprises 10 to about 55% by weight oleoresin black pepper and 45 to 90% by weight cinnamyl alcohol, and is added to the gum so that the gum comprises oleoresin black pepper in about 0.005 to about 0.5% by weight (see column 1, lines 44-49). Using the weight percentages of the oleoresin black pepper and cinnamyl alcohol in the liquid solution and the weight percentage range of the oleoresin black pepper in the gum, the weight percentage of cinnamyl alcohol in the gum can range from about 0.0041 to 4.5% by weight of the gum. Witkewitz et al. further teach the solution comprising the oleoresin black pepper and cinnamyl alcohol is preferably pre-blended with a liquid flavor before addition to the chewing gum (see column 3, line 68 to column 4, line 5). The flavor may be present in the chewing gum from 0.1% to about 10% by weight, and may comprise oils such as clove oil or citrus oil as claimed in the instant claim 5 (see column 5, lines 13-22).

Witkewitz et al. do not explicitly teach the compositions comprise eugenol, the specific weight percentages of eugenol and cinnamyl alcohol as claimed in the instant claims 10 and 14, or the weight ratio of cinnamyl alcohol to eugenol as claimed in the instant claims 10-12.

Barcelon et al. teach a common source of eugenol is clove oil, and as such, clove oil can be used in place of eugenol (see column 3, lines 23-25). Clove oil is a well

Art Unit: 1627

known essential oil available as clove bud oil, clove leaf oil, and clove stem oil, wherein water distilled clove bud oil contains over 92% eugenol, clove leave oil contains 82 to 90% eugenol, and clove stem oil contains 87 to 96% eugenol (see column 3, lines 26-36).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use eugenol or clove oil as taught by Barcelon et al. as the liquid flavor agent in the chewing gum composition containing cinnamyl alcohol as taught by Witkewitz et al. One of ordinary skill in the art would have been motivated to use the clove oil or eugenol as the liquid flavoring agent in the chewing gum composition comprising cinnamyl alcohol in order to provide a cinnamon and clove flavored chewing gum. One of ordinary skill in the art would have a reasonable expectation of success in using the clove oil or eugenol as the liquid flavoring agent because Witkewitz et al. teach clove oil is an acceptable flavoring agent and Barcelon et al. teach clove oil contains primarily eugenol.

In regards the weight percentage of cinnamyl alcohol and eugenol together in at least 3% or 5% by weight as claimed in the instant claims 2 and 10, where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation. *In re Aller*, 220 F.2d 454, 105 U.S.P.Q. 223, 235 (C.C.P.A. 1955). Since Witkewitz et al. teaches ranges for the cinnamyl alcohol and the flavoring agent (eugenol), the optimization of these ranges is considered to be *prima facie* obvious.

Furthermore in regards to claims 10-12, while the prior art references do not explicitly teach the claimed ratio of cinnamyl alcohol to eugenol, the determination of optimal or workable ratio of cinnamyl alcohol to eugenol by routine experimentation is obvious absent showing of criticality of the claimed amount. One having ordinary skill in the art would have been motivated to do this to obtain the desired flavor profile of the chewing gum composition.

In regards to claim 8, Witkewitz et al. do not teach that cinnamic aldehyde is a crucial ingredient in the chewing gum. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention that both compositions free of cinnamic aldehyde and containing cinnamic aldehyde are encompassed by the teachings of Witkewitz et al.

Thus, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art the time of the invention.

7. Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Witkewitz et al. (US 5,087,458) in view of Barcelon et al. (4,825,344) as applied to claims 10-15 and 18 above, and in further view of Cherukuri et al. (US 5,556,652).

Witkewitz et al. in view of Barcelon et al. is described *supra* as applied to claims 10-15 and 18. Witkewitz et al. further teach that any liquid flavoring which is of food quality is acceptable is suitable for the chewing gum, and that those skilled in the art would recognize that natural and artificial flavors may be combined in any manner (see column 5, lines 16-27).

Witkewitz et al. and Barcelon et al. do not teach compositions comprising lime as claimed in the instant claim 16, or one or more of benzyl formate, methyl cinnamate, benzoin, ethyl phenyl glycidate, ginger oil, cinnamyl acetate, and methyl heptenone as claimed in the instant claim 17.

Cherukuri et al. teach solid delivery systems for highly volatile flavor oils that may be added to chewing gums (see abstract). Suitable flavor oils include cinnamyl alcohol, lime oil, other citrus oils, clove oil, oil of bitter almonds (i.e. benzoin), cinnamyl acetate, and eugenol *inter alia* (see column 7 lines 30 to column 9, line 22).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use flavor agents such as lime oil, cinnamyl acetate, etc. as taught by Cherukuri et al. in the liquid flavoring agent in the chewing gum composition obvious over Witkewitz et al. in view of Barcelon et al. One of ordinary skill in the art would have been motivated to use flavor oils/agents such as lime oil, oil of bitter almonds (i.e. benzoin), or cinnamyl acetate in the liquid flavoring agent in the chewing gum composition in order to impart said flavor to the gum. One of ordinary skill in the art would have had a reasonable expectation of success in doing so because Witkewitz et al. teach that any flavor oil/agent suitable for food can be used in the liquid flavoring, and Cherukuri et al. teach lime oil, etc. as flavor oils/agents suitable for use in chewing gums.

Thus, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art the time of the invention.

***Conclusion***

No claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

***Correspondence***

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jody L. Karol whose telephone number is (571)270-3283. The examiner can normally be reached on 8:30 am - 5:00 pm Mon-Fri EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreeni Padmanabhan can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Jody L. Karol/

Examiner, Art Unit 1627

/Yong S. Chong/  
Primary Examiner, Art Unit 1627